



# Data Analytics Platform Automation - White Paper



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*PLEASE NOTE:*

*The term "Analytics Platform" refers to a data warehouse, data lake, or data lakehouse that is used to store, process, and analyze data and can contain data from different processing stages.*

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Analytics Platforms provide a central, well-organized, and reliable source of data for a wide range of analytics. Once loaded, the data can be reused for known queries or new ones. However, Analytics Platforms can be complex and require significant effort to implement and maintain. Companies of all sizes have spent a lot of time and resources trying to improve the service, analytics, and reporting layers built on poorly implemented data systems, which has resulted in a lot of technical debt and other bad code.

A recent paper by [Gartner](#), found that Data warehouses are necessary for high-performance analytics, but implementing and maintaining them can be costly and time-consuming. Data and analytics leaders should automate data warehouse development to reduce costs, improve efficiency, and deliver more value to the business.

## Analytics Platform Automation Defined

Analytics Platform automation is the use of technology to improve the efficiency and effectiveness of data warehousing processes. Analytics Platform Automation goes beyond simply automating the development process to encompass the entire platform lifecycle, from engineering and design to development and deployment.

Analytics Platform Automation is a set of technologies and tools that automate the tasks involved in building and managing data warehouses. Analytics Platform Automation can help businesses to:

- Reduce the time and cost of developing and maintaining Analytics Platform
- Improve the quality and accuracy of data.
- Increase the agility and responsiveness of Analytics Platforms to business needs.
- Reduce the risk of errors and outages.



## Use Cases for Analytics Platform Automation

### Data Warehouse Prototyping



Data warehouse prototyping is the process of creating a working model of a data warehouse to demonstrate its capabilities and to get feedback from users. Data warehouse automation can help to speed up the prototyping process by automating the creation of data warehouse schema and ETL processes.

### Agile Data Warehousing



Agile data warehousing is a development methodology that focuses on delivering small, working increments of a data warehouse to users as quickly as possible. Data warehouse automation can help to support agile data warehousing by providing a way to generate schema quickly and easily and ETL processes.

### Data Warehouse Migration



Data warehouse migration is the process of moving a data warehouse from one platform to another. Data warehouse automation can help to automate the migration process by extracting the design of the existing data warehouse and generating schema and ETL processes for the new platform.

### Data Warehouse Retroactive Documentation



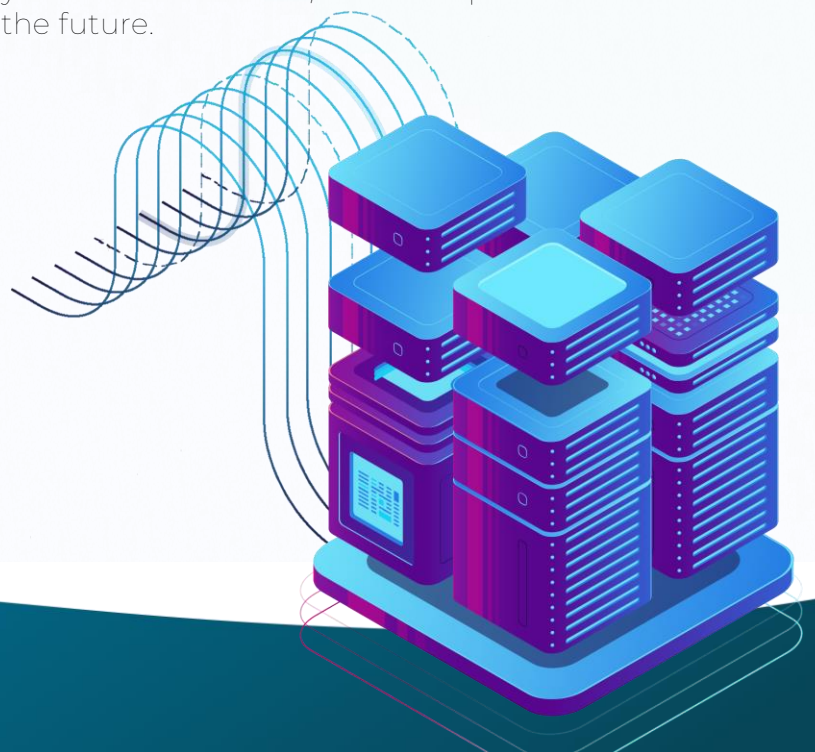
Data warehouse retroactive documentation is the process of creating documentation for an existing data warehouse that does not have any documentation. Data warehouse automation can help to automate this process by extracting the design of the existing data warehouse and generating documentation.

### Data Warehouse Re-Architecting



Data warehouse re-architecting is the process of making significant changes to the architecture of an existing data warehouse. Data warehouse automation can help to automate the re-architecting process by extracting the design of the existing data warehouse and generating schema and ETL processes for the new architecture.

These are just a few examples of how DWA is being used to improve data warehousing for businesses of all sizes. As DWA technology continues to evolve, we can expect to see even more innovative and impactful uses of DWA in the future.





## Benefits of Analytics Platform Automation

According to the BARC Data Management Survey 2023, 85% of respondents who use DWA are satisfied with its benefits. The top benefits of Analytics Platform Automation include:

- **Reduced time and effort:** DWA can automate many of the time-consuming tasks involved in data warehouse development and management, such as ETL, data modelling, a. This can free up data warehouse teams to focus on more strategic initiatives.
- **Improved data quality and accuracy:** DWA can help to improve the quality and accuracy of data by automating data quality checks for data.
- **Increased agility and responsiveness:** DWA can help organizations to increase the agility and responsiveness of data warehouses to business needs by enabling rapid changes to data warehouse schema and processes.
- **Reduced costs:** DWA can help to reduce the cost of developing and maintaining data warehouses by automating manual tasks and reducing the need for specialized skills.
- **Reduced risk:** DWA can help to reduce the risk of errors and outages by automating repetitive tasks and by providing a centralized view of data warehouse operations.



Some of the functions available with DWA Tools:

- **ETL tools:** ETL tools automate the process of extracting, transforming, and loading data from source systems into a data warehouse.
- **Data modelling tools:** Data modeling tools help businesses to design and implement data warehouses that meet their specific needs.
- **Performance tuning tools:** Performance tuning tools help businesses to optimize the performance of their data warehouses.
- **Data governance tools:** Data governance tools help businesses to manage the quality and security of their data.

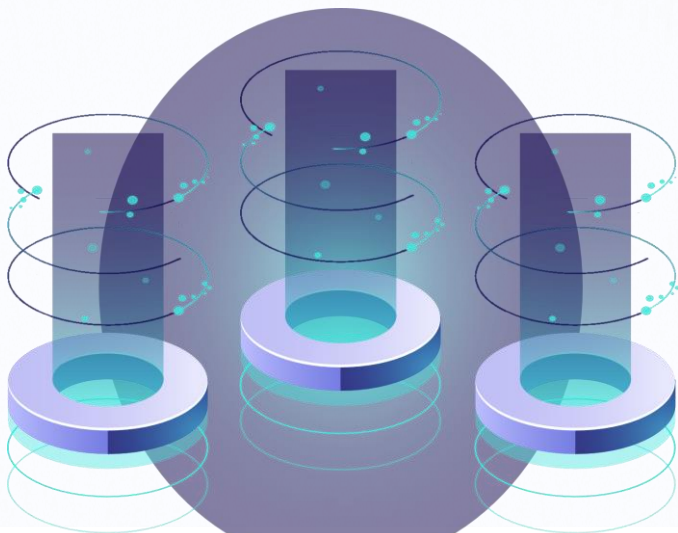
## Challenges of implementing DWA

While data warehouse automation (DWA) offers a number of benefits, there are also some challenges that businesses may face when implementing it. These challenges include:

- **Cost:** DWA software and tools can be expensive, especially for large and complex data warehouses.
- **Complexity:** DWA tools can be complex to implement and use, especially for businesses with limited technical resources.
- **Change management:** Implementing DWA can require significant changes to existing data warehouse processes and procedures. This can be difficult to manage, especially for large businesses with complex data warehousing environments.

## How to overcome the challenges of implementing a data analytics platform with DWA

- **Agile approach of DWA causes that the design and results also of prototyping are much faster.** Business gets a testable prototype in hours or days. The iterative steps are much closer together, so business should prepare for more time in shorter duration.
- **Provide training to staff:** Businesses should provide training to staff on how to use the DWA software and tools. This will help to ensure that the DWA implementation is successful.



## Use DWA to improve data warehousing:

### Quality and effectiveness

DWA can be used to automate the process of loading data from point-of-sale systems into the data warehouse. This will result in a significant reduction in the number of errors in the data warehouse and improve the accuracy of the company's business reports.

### Agility

DWA can be used to reduce the time it takes to build and deploy new data warehouse reports. This will enable the company to respond more quickly to changes in market conditions and customer needs.

### Speed

DWA can be used to reduce the time it takes to load data from electronic health records system into the data warehouse. This enabled the company to provide clinicians with faster access to the information they need to make informed patient care decisions.

### Cost

DWA can be used to reduce the number of staff required to manage its data warehouse. This resulted in significant cost savings for the company.

### Reducing the time, it takes to build and deploy data warehouses

DWA can automate many of the time-consuming tasks involved in data warehouse development, such as data modelling, data preparation (ex. ETL), testing, and deployment. This can free up data warehouse teams to focus on more strategic initiatives.

### Improving the quality and accuracy of data

DWA provides best practice code for the Data Warehouse. This ensures that the errors due to coding inaccuracies are removed, resulting in reduced errors in data warehouses. This leads to more accurate and reliable insights.

### Making data warehouses more agile and responsive to change

DWA can make it easier to update and modify data warehouses as business needs change. This can help businesses to stay ahead of the curve and to make better decisions faster.

### Reducing the cost of data warehousing

DWA can help to reduce the cost of data warehousing by reducing the need for manual labour and by automating many of the tasks involved in data warehouse management.



## Business Cases

Kulmbacher Bier  
Brauerei AG



Kulmbacher automated the migration and modernization of their 10-year-old SAP data warehouse to a modern architecture using AnalyticsCreator. This reduced the manual effort of new modeling with more than 8,000 tables and dependencies to a few weeks. Years of approved KPI calculations from the old DWH were also automatically transformed to the new AnalyticsCreator DWA approach, enabling the developer to start the modernization process faster.

Wahl



Wahl's data warehouse needed improvement

Through a 15-day collaboration with AnalyticsCreator, they transformed the DWH, with significant performance gains and reduced size. Existing reports were easily migrated

Provinzial



One of the top 10 German insurance company, adopted DWA and AnalyticsCreator to improve CI/CD and agility, aiming to release new app versions every 2 weeks instead of 1 month. By using synthetic data with business experts, Provinzial could begin development quickly, even before data governance and quality were established.

## Conclusion

Data warehouse automation is a powerful tool that can help businesses to build better, faster, and cheaper data warehouses. DWA can also help businesses to be more agile and responsive to change. For most businesses, the benefits of DWA outweigh the costs.

